

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: OCT 18 1990

SUBJECT: AMENDED ACTION MEMORANDUM - One year time exemption to allow the continuation of removal activities at the S.E. Rockford Site in Rockford, Illinois (Site Spill ID#DK)

FROM: Kenneth Theisen, On-Scene Coordinator
Emergency and Enforcement Response Branch

TO: David A. Ullrich, Director
Waste Management Division

THRU: Norman Niedergang, Associate Division Director
Office of Superfund

I. ENDANGERMENT FINDING

Continued response actions of a duration greater than twelve months cannot be undertaken unless an exemption to Section 104(c) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, is granted.

On September 19, 1989, Mr. Robert Bowden, Chief of the Emergency and Enforcement Response Branch (EERB) gave verbal approval to expend up to \$10,000 to supply bottled water for a time-critical removal action at the site. This was followed by an Action Memorandum on October 25, 1989, signed by Mr. John Kelley, acting for Mr. Basil Constantelos, Director Waste Management Division (Attachment 1). A ceiling increase Action Memorandum followed on March 30, 1990 (Attachment 2) signed by Mr. William Muno, acting for the Acting Division Director, Mr. David Ullrich. The removal action was initiated on September 19, 1989, with the initiation of bottled water deliveries.

This site is on the National Priorities List (NPL).

Conditions presently exist at the site which, if not addressed by implementing the response action documented in this Action Memorandum, will lead to an imminent and substantial endangerment to the public health or welfare or the environment.

II. BACKGROUND

A. Incident/Response History

The Southeast Rockford groundwater contamination site is a residential area of approximately two square miles located in the city limits. However, the area is unique in the fact that large areas of country exist as unincorporated "islands" surrounded by city. Consequently these areas lack many city services including city water. Although groundwater

contamination was known to exist in the area as far back as 1984, it wasn't until March, 1989 that the site was added to the NPL. The United States Environmental Protection Agency's (U.S. EPA) Emergency and Enforcement Response Branch's contractor, as part of the "90 day study" mandated by Administrator William Reilly, sampled two residential wells in the area in August. Results indicated the presence of numerous VOC's (volatile organic compounds) in the water, one in particular was in excess of U.S. EPA's Removal Action Level (RAL). The chemical, 1, 2-Dichloroethylene, was present in the amounts of 894 parts per billion (ppb) and 556 ppb respectively. This combined total of both the cis- and trans-isomers far exceeded the RAL for that chemical of 175 ppb for each of the isomers.

Bottled water was supplied to these residences while the Emergency Response Branch conducted an extensive sampling program in conjunction with an ongoing effort by the Illinois Department of Health (IDPH). Over four separate sampling efforts a total of 118 samples were taken, the results studied, and plotted on a contour map. This identified a plume over one mile long, trending west toward the Rock River, with the highest concentration of contamination occurring at the extreme eastern portion. Over 200 homes are affected and lie in the direct path of the plume. Although only the RAL's for individual chemicals were used to identify the homes at risk, the cumulative effect of the substantial amounts of additional chemicals present were also considered. These other chemicals include Trichloroethylene (TCE) in excess of 50% of its RAL of 128 ppb, and 1,1,1-Trichloroethane (TCA) substantially in excess of 50% of its RAL of 500 ppb.

Residents were switched from bottled water to "point-of-use" drinking water filters by the middle of January, 1990. Engineering and design work initiated by the OSC through the Emergency Response Cleanup Services (ERCS) contractor for a major addition to the City of Rockford's municipal water distribution system also began at this time. The city council unanimously gave its approval along with major funding concessions to the project in April, 1990. The City's Water Department approved the engineering specifications shortly thereafter. Bid packages were prepared and contracts negotiated, and on May 29, 1990 actual construction work started. The project (as projected) included approximately 18,000 feet of water main and 274 residential and small business connections, and was initially forecast to take from four to six months.

B. Summary of Removal Actions to Date

To date, the U.S. EPA has completed the following activities at the S.E. Rockford NPL site:

- 17,935 feet of various sized water main has been installed:
- Approximately 90% of a total of 275 residential connections have been completed:
- Properly abandoning the 260 wells is nearing completion, with other activities such as street repair and landscaping efforts also nearing completion.

It was anticipated that the project would be completed by the first week of October, 1990.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT

On July 31, 1990, Virginia Woods of the Illinois EPA informed the OSC that sampling conducted by them as part of their Remedial Investigation (RI) effort throughout the entire 1 mile by 2 1/2 mile area, encountered several new "hot spots" of contamination. These areas exist over 1 mile down gradient from the western edge of the removal area and contain similar chemicals. However, concentrations appear greater and the presence of Vinyl Chloride and Tetrachloroethylene considerably above RAL's indicate an additional plume or plumes of contamination entering the "S.E. Rockford" plume down gradient.

These results were confirmed by the U.S. EPA with sampling on August 23, 1990, with Emergency Response management being informed at that time. The OSC was directed to take the necessary action to mitigate the effects of this new and substantial contamination.

On August 29, 1990, additional samples were taken in an attempt to delineate these areas. Results were received on September 13, 1990, with the following course of action planned:

- 1) Rock River Avenue: By far the most serious contamination found in the area, with RAL's being exceeded by three chemicals. A total of six homes are affected. Will require the construction of 1500 feet of water main. All homes are presently on bottled water.
- 2) Barry-Kennon Streets: Threat posed to seven homes with concentrations of Trichloroethylene and Tetrachloroethylene over their RAL's. City water is available in the area. The two worst homes are on bottled water.
- 3) Brooke Road: Concentrations of Trichloroethylene range from slightly over the RAL (150 ppb) to 38 ppb. Only 3 homes affected. City water not available. Costs would be prohibitive (in excess of \$200 k). Anticipate "point-of-use" filters as a temporary measure, with the state assuming maintenance costs. Affected homes are on bottled water.

It is expected that the above activity will add approximately four to six weeks to the project, hence making it necessary to petition for the one year exemption.

IV. EXEMPTION FROM STATUTORY LIMITS

Section 104(c) of CERCLA as amended by SARA limits Federal removal actions at non-NPL sites to one year duration unless the following conditions are met: a) continued response actions are immediately required to prevent, limit, or mitigate an emergency; b) there is an immediate risk to public health and the environment; and c) such assistance will not otherwise be provided on a timely basis.

An exemption from the one year duration is needed to continue this time-critical removal in a cost effective and environmentally safe manner. The removal action at the S.E. Rockford site meets the exemption criteria for exceeding the statutory limits on duration under Section 104 (c) (1) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986. The exemption which the removal action meets consists of the following:

There is an immediate risk to public health or welfare or the environment.

The ingestion of water containing compounds which exceed the U.S. EPA's RAL's meet the criteria for a removal action as stated in the National Contingency Plan (NCP) 40 CFR Section 300.415 (b) (2) which states: "Actual or potential exposure to hazardous substances by nearby populations, animals, or food chains." The newly discovered areas of contamination contain at least several chemicals which exceed their various RAL's, one of which is Vinyl Chloride, a "Class A" carcinogen.

Continued Response Actions are Immediately Required to Prevent, Limit, or Mitigate an Emergency.

A continuation of the removal action would serve to complete the project and provide municipal water to 13 added residences, whose well water was recently found to be severely contaminated. Contamination exists in the form of volatile organic compounds (VOC's) with levels up to many times in excess of the respective RAL's.

Assistance will not otherwise be provided on a timely basis.

A responsible party has not yet been identified and, in addition, neither the City of Rockford nor Winnebago County have the funds to install the needed water supply lines, do the plumbing hook-ups, and abandon the wells.

Although this site is a NPL site, any remedial action will not occur in a timely fashion. The on-going Remedial Investigation is not complete and, with winter approaching, any upcoming construction proposed as a result would have to wait until spring. Whereas the current emergency response action has a contractor in place to do the work, and also has the proper level of funding to complete the expanded removal.

Continued Response Actions are Otherwise Appropriate and Consistent with the Remedial Action to be Taken.

As previously stated, the on-going Remedial Investigation, when completed this winter, will propose an identical course of action to the current emergency response action. It will provide municipal water to the homes currently outside the scope of the present emergency action.

V. ENFORCEMENT

Current enforcement activity includes the analysis of 104-E Information Requests, which have been sent to a number of potentially responsible parties (PRP's) by U.S. EPA's Remedial Project Manager. Preliminary data reviewed to date indicates that at least two of the PRP's have been linked to the "S.E. Rockford" ground water contamination.

VI. PROPOSED ACTIONS AND ESTIMATED COSTS

The actions necessary to complete the present removal action at the "S.E. Rockford" IL, NPL site include the following:

- 1) Install 1500 feet of 6 inch water main and six plumbing connections to the affected residents of the Rock River Avenue area. Properly abandon the six wells.
- 2) Connect the seven affected residences in to Barry-Kennon Street area to the municipal system and properly abandon their wells.
- 3) Install between seven and ten "point-of-use" carbon drinking water filters to the affected residents in the lower Brooke Road area, to provide temporary relief.

These actions will require an additional four to six weeks, and would result in a total project life of 13 1/2 months. No additional funding is required.

VII. RECOMMENDATION

Due to the nature of the situation at the "S.E. Rockford" site located in Rockford, Illinois, and because the site conditions meet the exemption criteria under Section 104 (c) (1) of CERCLA, I recommend that you approve an exemption from the one year time limit in order to allow the current removal action to respond to severe, newly discussed ground water contamination, thus completing the project.

Approve: David A. Ullrich
David A. Ullrich, Director
Waste Management Division

Date: 10/18/90

Disapprove: _____
David A. Ullrich, Director
Waste Management Division

Date: _____

Attachment 1 - Action Memo, October 25, 1989
Attachment 2 - Action Memo, March 30, 1990

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